



Australian Government
**Australian Pesticides and
Veterinary Medicines Authority**

PERMIT TO ALLOW MINOR USE OF AN AGVET CHEMICAL PRODUCT

**TO CONTROL VARIOUS PLANT DISEASES IN (NON-FOOD) NURSERY STOCK,
INCLUDING SEEDLINGS, PLUGS, POTTED COLOUR, TREES, SHRUBS,
FOLIAGE PLANTS, PALMS, GRASSES, FRUIT TREES AND ORNAMENTALS**

PERMIT NUMBER – PER81491

This permit is issued to the Permit Holder in response to an application granted by the APVMA under section 112 of the Agvet Codes of the jurisdictions set out below. This permit allows a person, as stipulated below, to use the product in the manner specified in this permit in the designated jurisdictions. This permit also allows any person to claim that the product can be used in the manner specified in this permit.

THIS PERMIT IS IN FORCE FROM 17 JULY 2015 to 31 JULY 2020

Permit Holder:

NURSERY AND GARDEN INDUSTRY AUSTRALIA LTD
c/- AGAWARE CONSULTING PTY LTD
21 Rosella Avenue
STRATHFIELDSAYE VIC 3551

Persons who can use the product under this permit:

Persons generally.

CONDITIONS OF USE (for all users of this permit)

Persons using fungicide products must refer to the *Application Rates* and *Critical Use Conditions* listed in the following Tables:

Table 1. Anthracnose

Table 2. Downy mildew

Table 3. Grey mould

Table 4. Leaf spots

Table 5. Leaf spot and leaf blotch

Table 6. Phoma

Table 7. Phytophthora

Table 8. Powdery mildew

Table 9. Rhizoctonia rot

Table 10. Rust

Table 11. Sclerotinia rot

Table 12. Septoria leaf spot

Table 13. Myrtle rust control in nursery stock

Table 14. Myrtle rust in home garden situations

Reference may also be made under *Critical Use Conditions* to additional notes relating to *Safety Directions* and the wearing of appropriate *Personal Protective Equipment (PPE)*, and to the *Re-entry Period* following spray application. These notes are an important part of the *Critical Use Conditions*.

Withholding Period:

NOT required when used as directed

Jurisdiction:

ACT, NSW, QLD, SA, TAS, NT & WA

Note: Victoria is not included in this permit, as their *Control-of-Use* legislation means a permit is not required to legalise this off-label use in that state.

Additional Conditions:

This PERMIT provides for the use of a product in a manner other than specified on the approved label of the product. Unless otherwise stated in this permit, the use of the product must be in accordance with instructions on its label.

PERSONS who wish to prepare for use and/or use products for the purposes specified in this permit must read, or have read to them, the DETAILS and CONDITIONS of this permit.

To Avoid Crop Damage:

Nursery stock is not known to be sensitive to the chemical fungicide products listed in this permit when used in strict accordance with the rate, conditions of use and other warnings.

However, the large number of disparate crop lines produced in commercial nurseries means that not all these products have been fully evaluated for crop safety on all species, or in all situations where treatment may be undertaken. Some of these fungicide may demonstrate toxicity under certain situations, application methods, application rates and weather conditions to susceptible nursery stock. Some fungicide may also leave undesirable spray residue on foliage and flowers.

Users **must** treat a sample number of plants or a small area prior to whole crop treatment and monitor any phytotoxic effects that will compromise production goals. This action cannot guarantee crop safety as application, environmental and crop conditions may vary from test treatment to whole of crop treatment. Any instances of phytotoxic damage should be reported immediately to the permit holder.

Further reference to specific known issues may also be made under *Critical Use Conditions* to additional notes relating to *Crop Safety* and a potential risk of phytotoxicity. These notes are an important part of the *Critical Use Conditions*.

Resistance Management

Use fungicide products in accordance with existing *Fungicide Resistance Management Strategies* and in accordance with best practice. Fungicide products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure. It is important that approved fungicide products are rotated between different chemical mode of action (MoA) groups at regular intervals within a structured disease management plan.

Fungicide Resistance Management Strategies have been developed by CropLife Australia. An updated version of these strategies is available from CropLife Australia's website at: <http://www.croplife.org.au/industry-stewardship/resistance-management> or search on-line for Resistance Management CropLife Australia.

Issued by the Australian Pesticides and Veterinary Medicines Authority

CONDITIONS OF USE

Products to be used:

Azoxystrobin:

AMISTAR 250 SC FUNGICIDE

Plus other registered products

Containing: 250 g/L azoxystrobin as their only active constituent.

AMISTAR WG SC FUNGICIDE

Plus other registered products

Containing: 500 g/kg azoxystrobin as their only active constituent.

Boscalid & Pyraclostrobin:

PRISTINE FUNGICIDE

Containing: 252 g/kg boscalid + 128 g/kg pyraclostrobin as their only active constituent.

Bupirimate:

NIMROD FUNGICIDE

Plus other registered products

Containing: 250 g/L bupirimate as their only active constituent.

Copper:

CUNG FU 350 SC FUNGICIDE

Plus other registered products

Containing: 350 g/L copper present as copper hydroxide as their only active constituent.

YATES FUNGUS FIGHTER COPPER FUNGUS SPRAY

Plus other registered products

Containing: 375 g/kg copper present as copper hydroxide as their only active constituent.

BLUE SHIELD DF COPPER FUNGICIDE

Plus other registered products

Containing: 500 g/kg copper present as copper hydroxide as their only active constituent.

RICHGRO COPPER FUNGICIDE & LEAF CURL SPRAY

Plus other registered products

Containing: 500 g/kg copper present as copper oxychloride as their only active constituent.

COPPER OXYCHLORIDE

Plus other registered products

Containing: 500 g/kg copper present as copper oxychloride as their only active constituent.

Cyprodinil & Fludioxonil:

SWITCH FUNGICIDE

Containing: 375 g/kg cyprodinil + 250 g/kg fludioxonil as their only active constituent.

Dimethomorph

ACROBAT FUNGICIDE

Plus other registered products

Containing: 500 g/kg dimethomorph as their only active constituent.

ACROBAT SC FUNGICIDE

Plus other registered products

Containing: 500 g/L dimethomorph as their only active constituent.

Mancozeb:

SEARLES MANCOZEB FUNGICIDE

Plus other registered products

Containing: 750 g/kg mancozeb as their only active constituent.

IMTRADE MANCOZEB 750 DF FUNGICIDE

Plus other registered products

Containing: 750 g/kg mancozeb as their only active constituent.

IMTRADE MANCOZEB 800 WP FUNGICIDE

Plus other registered products

Containing: 800 g/kg mancozeb as their only active constituent.

Mancozeb & Metalaxyl-M

ZEEMIL 720 WG SYSTEMIC & PROTECTIVE FUNGICIDE

Plus other registered products

Containing: 640 g/kg mancozeb and 80 g/kg metalaxyl as their only active constituent.

RIDOMIL GOLD MZ WG SYSTEMIC & PROTECTIVE FUNGICIDE

Plus other registered products

Containing: 640 g/kg mancozeb and 40 g/kg metalaxyl-M as their only active constituent.

Triadimenol:

BAYFIDAN 250 EC FUNGICIDE

Plus other registered products

Containing: 250 g/l triadimenol as their only active constituent.

Oxycarboxin:

PLANTVAX 750 WP SYSTEMIC FUNGICIDE

Plus other registered products

Containing: 750 g/kg oxycarboxin as their only active constituent.

Propiconazole:

TILT 250 EC SYSTEMIC FUNGICIDE

Plus other registered products

Containing: 250 g/L propiconazole as their only active constituent

Triforine:

SHARP SHOOTER TRIFORINE ROSE SPRAY CONCENTRATE

Plus other registered products

Containing: 20 g/L triforine as their only active constituent.

SAPROL FUNGICIDE

Plus other registered products

Containing: 190 g/L triforine as their only active constituent.

DIRECTIONS FOR USE:

Table 1. Anthracnose control in nursery stock (non-food) and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
Anthracnose <i>(Colletotrichum spp.)</i>	<i>Pristine Fungicide</i> 252 g/kg boscalid (7) plus 128 g/kg pyraclostrobin (11)	60 - 135 g/100 L	<ul style="list-style-type: none"> ▪ Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development. ▪ Apply maximum three (3) foliar spray applications within an annual production cycle. ▪ Thorough coverage of foliage is essential: apply diluent to the point of run-off. ▪ Consecutive treatments should be applied 7 to 14 days apart. Use shorter interval when conditions favour disease development. ▪ DO NOT apply more than two (2) consecutive applications. ▪ Use in accordance with existing resistance management strategies and in accordance with best practice. ▪ Use higher rate when disease pressure is severe. ▪ Refer <i>Safety Directions</i> – Note 1 ▪ Refer <i>Resistance Management</i> – Note 2
	<i>Switch Fungicide</i> 375 g/kg cyprodinil (9) plus 250 g/kg fludioxonil (12)	80 g/100 L or 800 g/ha	<ul style="list-style-type: none"> ▪ DO NOT apply more than four (4) applications per crop at 10 to 14 day intervals when conditions favour disease development, prior to or at the first symptoms. ▪ DO NOT apply more than two (2) consecutive applications of <i>Switch Fungicide</i> before applying at least the same number of sprays from a different mode of action group. ▪ Refer <i>Crop Damage/Phytotoxicity</i> – Note 3.

Table 1 cont. Anthracnose control in nursery stock (non-food) and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Anthracnose	Acrobat Fungicide 500 g/kg dimethomorph (40) PLUS Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products	36 g/100 L PLUS 160 g/100 L OR 150 g/100 L	<ul style="list-style-type: none"> ▪ Apply before disease appears when conditions favour infection. ▪ Apply as a foliar application with boom sprayer, hand-held boom or equivalent. ▪ Apply by low volume application of concentrated spray by sprayer designed and set up for concentrate spraying. ▪ DO NOT apply more than four (4) sprays per crop. Applying two consecutive sprays of dimethomorph + mancozeb 7 to 14 days apart then alternating to a fungicide from another chemical group. Use shorter intervals when conditions favouring infection are creating a high risk. ▪ For fungicide resistance management Acrobat is a Group X fungicide. Limit use of this product to periods when conditions favour disease development. Maintain a regular protectant spray program. ▪ Mancozeb may have an impact on some IPM systems. ▪ This permit is for a tank-mix of registered Acrobat products in combination with registered mancozeb products. Both products are required for effective control of the diseases listed.
	Acrobat SC Fungicide 500 g/L dimethomorph PLUS Mancozeb 750 g/kg OR Mancozeb 800 g/kg products	36 mL/100 L PLUS 160 g/100 L OR 150 g/100 L	
	Copper hydroxide (M1) 350 g/L products	150 mL/100 L	
	Copper hydroxide 375 g/kg products	140 g/100 L	
	Copper hydroxide 500 g/kg products	100 g/100 L	

Table 1 cont. Anthracnose control in nursery stock (non-food) and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

<p>Anthracnose</p>	<p>Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products</p>	<p>150 - 200 g/100 L</p>	<ul style="list-style-type: none"> ▪ Apply as a preventative treatment when conditions favour disease development, or at the first signs of disease infection. ▪ DO NOT use mancozeb as a curative fungicide. ▪ Thorough coverage of foliage is essential for optimum performance. Apply in sufficient water volume to cover all foliage to the point of run-off. Avoid excessive run-off. ▪ During wet and/or humid weather conditions favourable for disease development, use higher rate and shorter spray interval. ▪ Apply two (2) sequential mancozeb cover sprays at 7 – 10 day interval; then alternate to a fungicide from another chemical group with a different <i>Mode of Action</i>. ▪ DO NOT apply more than four (4) applications of mancozeb product per crop. ▪ Mancozeb products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure.
	<p><i>Zeemil 720 WG Fungicide</i> and other registered products containing 640 g/kg mancozeb plus 80 g/kg metalaxyl (4)</p>	<p>2.5 kg product in 200 - 500 L water per hectare</p>	<ul style="list-style-type: none"> ▪ Commence spraying early (i.e. prior to the known disease infection period) with a registered fungicide product from a different activity (MoA) group. ▪ Apply maximum two (2) consecutive applications when conditions favour disease development. Consecutive sprays should be applied 7 to 10 days apart. Continue the spray program using non-Group 4 fungicides with <u>protective</u> activity.
	<p><i>Ridomil Gold MZ Fungicide</i> and other registered products containing 640 g/kg mancozeb plus 40 g/kg metalaxyl-M</p>	<p>2.5 kg product in 200 - 500 L water per hectare</p>	<ul style="list-style-type: none"> ▪ Apply maximum four (4) foliar spray applications within an annual production cycle. ▪ Thorough coverage of foliage is essential: apply diluent to the point of run-off. ▪ Use in accordance with existing Fungicide Resistance Management strategies and in accordance with best practice. ▪ Refer <i>Re-entry Period</i> – Note 4

Table 2. Downy mildew control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
<p>Downy mildew (<i>Peronospora spp.</i>, <i>Pseudoperonospora</i> <i>spp.</i>, <i>Bremia lactucae</i>)</p>	<p><i>Amistar 250 SC Fungicide</i> and other registered products containing 250 g/L azoxystrobin (11)</p>	<p>80 - 120 mL/100 L</p>	<ul style="list-style-type: none"> ▪ DO NOT use concentration factors exceeding four times (4x). ▪ Apply in sufficient volume to ensure adequate coverage of all plant surfaces. ▪ DO NOT use azoxystrobin curatively. ▪ DO NOT apply more than two (2) consecutive applications of azoxystrobin.
	<p><i>Amistar WG Fungicide</i> and other registered products containing 500 g/kg azoxystrobin</p>	<p>40 - 60 g/100 L</p>	
	<p><i>Acrobat Fungicide</i> 500 g/kg dimethomorph (40) PLUS Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products</p>	<p>36 g/100 L PLUS 160 g/100 L OR 150 g/100 L</p>	<ul style="list-style-type: none"> ▪ Apply before disease appears when conditions favour infection. ▪ Apply as a foliar application with boom sprayer, hand-held boom or equivalent. ▪ Apply by low volume application of concentrated spray by sprayer designed and set up for concentrate spraying. ▪ DO NOT apply more than four (4) sprays per crop. Applying two (2) consecutive sprays of dimethomorph + mancozeb 7 to 14 days apart then alternating to a fungicide from another chemical group. Use shorter intervals when conditions favouring infection are creating a high risk. ▪ For fungicide resistance management Acrobat is a Group X fungicide. Limit use of this product to periods when conditions favour disease development. Maintain a regular protectant spray program. ▪ Mancozeb may have an impact on some IPM systems. ▪ This permit is for a tank-mix of registered Acrobat products in combination with registered mancozeb products. Both products are required for effective control of the diseases listed.
	<p><i>Acrobat SC Fungicide</i> 500 g/L dimethomorph PLUS Mancozeb 750 g/kg OR Mancozeb 800 g/kg products</p>	<p>36 mL/100 L PLUS 160 g/100 L OR 150 g/100 L</p>	

Table 2 cont. Downy mildew control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Downy mildew	Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products	150 - 200 g/100 L	<ul style="list-style-type: none"> ▪ Apply as a preventative treatment when conditions favour disease development, or at the first signs of disease infection. ▪ DO NOT use mancozeb as a curative fungicide. ▪ Thorough coverage of foliage is essential for optimum performance. Apply in sufficient water volume to cover all foliage to the point of run-off. Avoid excessive run-off. ▪ During wet and/or humid weather conditions favourable for disease development, use higher rate and shorter spray interval. ▪ Apply two (2) sequential mancozeb cover sprays at 7 – 10 day interval; then alternate to a fungicide from another chemical group with a different <i>Mode of Action</i>. ▪ DO NOT apply more than four (4) applications of mancozeb product per crop. ▪ Mancozeb products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure.
	Copper hydroxide (M1) 350 g/L products	150 mL/100 L	<ul style="list-style-type: none"> ▪ Commence foliar spray application at first sign of disease. ▪ Ensure complete and thorough coverage of foliage and/or crop. Use a minimum spray volume of 250 L/ha using air-blast spray or boomspray. ▪ DO NOT apply more than six (6) applications per crop with a re-treatment interval of 7-14 days between consecutive sprays.
	Copper hydroxide 375 g/kg products	140 g/100 L	
	Copper hydroxide 500 g/kg products	100 g/100 L	

Table 3. Grey mould control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
Grey mould <i>(Botrytis spp.)</i>	<i>Amistar 250 SC Fungicide</i> and other registered products containing 250 g/L azoxystrobin (11)	80 - 120 mL/100 L	<ul style="list-style-type: none"> ▪ DO NOT use concentration factors exceeding four times (4x). ▪ Apply in sufficient volume to ensure adequate coverage of all plant surfaces. ▪ DO NOT use azoxystrobin curatively. ▪ DO NOT apply more than two (2) consecutive applications of azoxystrobin.
	<i>Amistar WG Fungicide</i> and other registered products containing 500 g/kg azoxystrobin	40 - 60 g/100 L	
	<i>Pristine Fungicide</i> 252 g/kg boscalid (7) plus 128 g/kg pyraclostrobin (11)	90 - 135 g/100 L	<ul style="list-style-type: none"> ▪ Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development. ▪ Apply maximum three (3) foliar spray applications within an annual production cycle. ▪ Thorough coverage of foliage is essential: apply diluent to the point of run-off. ▪ Consecutive treatments should be applied 7 to 14 days apart. Use shorter interval when conditions favour disease development. ▪ DO NOT apply more than two (2) consecutive applications. ▪ Use in accordance with existing resistance management strategies and in accordance with best practice. ▪ Use higher rate when disease pressure is severe. ▪ Refer <i>Safety Directions</i> – Note 1 ▪ Refer <i>Resistance Management</i> – Note 2

Table 3 cont. Grey mould control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Grey mould	Switch Fungicide 375 g/kg cyprodinil (9) plus 250 g/kg fludioxonil (12)	80 g/100 L or 800 g/ha	<ul style="list-style-type: none"> ▪ DO NOT apply more than four (4) applications per crop at 10 to 14 day intervals when conditions favour disease development, prior to or at the first symptoms. ▪ DO NOT apply more than two (2) consecutive applications of <i>Switch Fungicide</i> before applying at least the same number of sprays from a different mode of action group. ▪ Apply via calibrated boom or handheld sprayer. ▪ Refer <i>Crop Damage/Phytotoxicity</i> – Note 3.
	Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products	150 - 200 g/100 L	<ul style="list-style-type: none"> ▪ Apply as a preventative treatment when conditions favour disease development, or at the first signs of disease infection. ▪ DO NOT use mancozeb as a curative fungicide. ▪ Thorough coverage of foliage is essential for optimum performance. Apply in sufficient water volume to cover all foliage to the point of run-off. Avoid excessive run-off. ▪ During wet and/or humid weather conditions favourable for disease development, use higher rate and shorter spray interval. ▪ Apply two (2) sequential mancozeb cover sprays at 7 – 10 day interval; then alternate to a fungicide from another chemical group with a different <i>Mode of Action</i>. ▪ DO NOT apply more than four (4) applications of mancozeb product per crop. ▪ Mancozeb products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure.

Table 4. Leaf spots control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
Leaf spots (<i>Colletotrichum spp.</i> & <i>Alternaria spp.</i>)	<i>Amistar 250 SC Fungicide</i> and other registered products containing 250 g/L azoxystrobin (11)	80 - 120 mL/100 L	<ul style="list-style-type: none"> ▪ DO NOT use concentration factors exceeding four times (4x). ▪ Apply in sufficient volume to ensure adequate coverage of all plant surfaces. ▪ DO NOT use azoxystrobin curatively. ▪ DO NOT apply more than two (2) consecutive applications of azoxystrobin.
	<i>Amistar WG Fungicide</i> and other registered products containing 500 g/kg azoxystrobin	40 - 60 g/100 L	
	Copper hydroxide (M1) 350 g/L products	150 mL/100 L	<ul style="list-style-type: none"> ▪ Commence foliar spray application at first sign of disease. ▪ Ensure complete and thorough coverage of foliage and/or crop. Use a minimum spray volume of 250 L/ha using air-blast spray or boomspray. ▪ DO NOT apply more than six (6) applications per crop with a re-treatment interval of 7-14 days between consecutive sprays.
	Copper hydroxide 375 g/kg products	140 g/100 L	
	Copper hydroxide 500 g/kg products	100 g/100 L	
	<i>Acrobat Fungicide</i> 500 g/kg dimethomorph (40) PLUS Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products	36 g/100 L PLUS 160 g/100 L OR 150 g/100 L	<ul style="list-style-type: none"> ▪ Apply before disease appears when conditions favour infection. ▪ Apply as a foliar application with boom sprayer or hand-held boom. ▪ Apply by low volume application of concentrated spray by sprayer designed and set up for concentrate spraying. ▪ DO NOT apply more than four (4) sprays per crop. Applying two consecutive sprays of dimethomorph + mancozeb 7 to 14 days apart then alternating to a fungicide from another chemical group. Use shorter intervals when conditions favouring infection are creating a high risk. ▪ For fungicide resistance management Acrobat is a Group X fungicide. Limit use of this product to periods when conditions favour disease development. Maintain a regular protectant spray program. ▪ Mancozeb may have an impact on some IPM systems. ▪ This permit is for a tank-mix of registered Acrobat products in combination with registered mancozeb products. Both products are required for effective control of the diseases listed.
	<i>Acrobat SC Fungicide</i> 500 g/L dimethomorph PLUS Mancozeb 750 g/kg OR Mancozeb 800 g/kg products	36 mL/100 L PLUS 160 g/100 L OR 150 g/100 L	

Table 4 cont. Leaf spots control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

<p>Leaf spots</p>	<p>Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products</p>	<p>150 - 200 g/100 L</p>	<ul style="list-style-type: none"> ▪ Apply as a preventative treatment when conditions favour disease development, or at the first signs of disease infection. ▪ DO NOT use mancozeb as a curative fungicide. ▪ Thorough coverage of foliage is essential for optimum performance. Apply in sufficient water volume to cover all foliage to the point of run-off. Avoid excessive run-off. ▪ During wet and/or humid weather conditions favourable for disease development, use higher rate and shorter spray interval. ▪ Apply two (2) sequential mancozeb cover sprays at 7 – 10 day interval; then alternate to a fungicide from another chemical group with a different <i>Mode of Action</i>. ▪ DO NOT apply more than four (4) applications of mancozeb product per crop. ▪ Mancozeb products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure.
	<p><i>Zeemil 720 WG Fungicide</i> and other registered products containing 640 g/kg mancozeb plus 80 g/kg metalaxyl (4)</p>	<p>2.5 kg product in 200 - 500 L water per hectare</p>	<ul style="list-style-type: none"> ▪ Commence spraying early (i.e. prior to the known disease infection period) with a registered fungicide product from a different activity (MoA) group. ▪ Apply maximum two (2) consecutive applications when conditions favour disease development. Consecutive sprays should be applied 7 to 10 days apart. Continue the spray program using non-Group 4 fungicides with <u>protective</u> activity. ▪ Apply maximum four (4) foliar spray applications within an annual production cycle.
	<p><i>Ridomil Gold MZ Fungicide</i> and other registered products containing 640 g/kg mancozeb plus 40 g/kg metalaxyl-M</p>	<p>2.5 kg product in 200 - 500 L water per hectare</p>	<ul style="list-style-type: none"> ▪ Thorough coverage of foliage is essential: apply diluent to the point of run-off. ▪ Use in accordance with existing Fungicide Resistance Management strategies and in accordance with best practice. ▪ Refer <i>Re-entry Period</i> – Note 4

Table 5. Leaf spot and leaf blotch control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
<p>Leaf spot and leaf blotch (<i>Cercospora spp.</i>, <i>Mycosphaerella spp.</i> and <i>Septoria spp.</i>)</p>	<p>Pristine Fungicide 252 g/kg boscalid (7) plus 128 g/kg pyraclostrobin (11)</p>	<p>60 - 90 g/100 L</p>	<ul style="list-style-type: none"> ▪ Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development. ▪ Apply maximum three (3) foliar spray applications within an annual production cycle. ▪ Thorough coverage of foliage is essential: apply diluent to the point of run-off. ▪ Consecutive treatments should be applied 7 to 14 days apart. Use shorter interval when conditions favour disease development. ▪ DO NOT apply more than two (2) consecutive applications. ▪ Use in accordance with existing resistance management strategies and in accordance with best practice. ▪ Use higher rate when disease pressure is severe. ▪ Refer <i>Safety Directions</i> – Note 1 ▪ Refer <i>Resistance Management</i> – Note 2
	<p>Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products</p>	<p>150 - 200 g/100 L</p>	<ul style="list-style-type: none"> ▪ Apply as a preventative treatment when conditions favour disease development, or at the first signs of disease infection. ▪ DO NOT use mancozeb as a curative fungicide. ▪ Thorough coverage of foliage is essential for optimum performance. Apply in sufficient water volume to cover all foliage to the point of run-off. Avoid excessive run-off. ▪ During wet and/or humid weather conditions favourable for disease development, use higher rate and shorter spray interval. ▪ Apply two (2) sequential mancozeb cover sprays at 7 – 10 day interval; then alternate to a fungicide from another chemical group with a different <i>Mode of Action</i>. ▪ DO NOT apply more than four (4) applications of per crop. ▪ Mancozeb products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure.

Table 6. Phoma control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
<p>Phoma (<i>Phoma spp.</i>)</p>	<p>Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products</p>	<p>150 - 200 g/100 L</p>	<ul style="list-style-type: none"> ▪ Apply as a preventative treatment when conditions favour disease development, or at the first signs of disease infection. ▪ DO NOT use mancozeb as a curative fungicide. ▪ Thorough coverage of foliage is essential for optimum performance. Apply in sufficient water volume to cover all foliage to the point of run-off. Avoid excessive run-off. ▪ During wet and/or humid weather conditions favourable for disease development, use higher rate and shorter spray interval. ▪ Apply two (2) sequential mancozeb cover sprays at 7 – 10 day interval; then alternate to a fungicide from another chemical group with a different <i>Mode of Action</i>. ▪ DO NOT apply more than four (4) applications of mancozeb product per crop. ▪ Mancozeb products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure.

Table 7. Phytophthora control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
Phytophthora <i>(Phytophthora spp.)</i>	Acrobat Fungicide 500 g/kg dimethomorph (40) PLUS Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products	36 g/100 L PLUS 160 g/100 L OR 150 g/100 L	<ul style="list-style-type: none"> ▪ Apply before disease appears when conditions favour infection. ▪ Apply as a foliar application with boom sprayer, hand-held boom or equivalent. ▪ Apply by low volume application of concentrated spray by sprayer designed and set up for concentrate spraying. ▪ DO NOT apply more than four (4) sprays per crop. Applying two consecutive sprays of dimethomorph + mancozeb 7 to 14 days apart then alternating to a fungicide from another chemical group. Use shorter intervals when conditions favouring infection. ▪ For fungicide resistance management Acrobat is a Group X fungicide. Limit use of this product to periods when conditions favour disease development. Maintain a regular protectant spray program. ▪ Mancozeb may have an impact on some IPM systems. ▪ This permit is for a tank-mix of registered Acrobat products in combination with registered mancozeb products. Both products are required for effective control of the diseases listed.
	Acrobat SC Fungicide 500 g/L dimethomorph PLUS Mancozeb 750 g/kg OR Mancozeb 800 g/kg products	36 mL/100 L PLUS 160 g/100 L OR 150 g/100 L	
	Zeemil 720 WG Fungicide and other registered products containing 640 g/kg mancozeb plus 80 g/kg metalaxyl (4)	2.5 kg product in 200 - 500 L water per hectare	
	Ridomil Gold MZ Fungicide and other registered products containing 640 g/kg mancozeb plus 40 g/kg metalaxyl-M	2.5 kg product in 200 - 500 L water per hectare	

Table 8. Powdery mildew control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
Powdery mildew <i>(Erysiphe spp., Leveillula spp., Microsphaera spp., Oidium spp. & Sphaerotheca spp.)</i>	<i>Amistar 250 SC Fungicide</i> and other registered products containing 250 g/L azoxystrobin (11)	80 - 120 mL/100 L	<ul style="list-style-type: none"> ▪ DO NOT use concentration factors exceeding four times (4x). ▪ Apply in sufficient volume to ensure adequate coverage of all plant surfaces. ▪ DO NOT use azoxystrobin curatively. ▪ DO NOT apply more than two (2) consecutive applications of azoxystrobin.
	<i>Amistar WG Fungicide</i> and other registered products containing 500 g/kg azoxystrobin	40 - 60 g/100 L	
	<i>Pristine Fungicide</i> 252 g/kg boscalid (7) plus 128 g/kg pyraclostrobin (11)	60 - 90 g/100 L	<ul style="list-style-type: none"> ▪ Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development. ▪ Apply maximum three (3) foliar spray applications within an annual production cycle. ▪ Thorough coverage of foliage is essential: apply diluent to the point of run-off. ▪ Consecutive treatments should be applied 7 to 14 days apart. Use shorter interval when conditions favour disease development. ▪ DO NOT apply more than two (2) consecutive applications. ▪ Use in accordance with existing resistance management strategies and in accordance with best practice. ▪ Use higher rate when disease pressure is severe. ▪ Refer <i>Safety Directions</i> – Note 1 ▪ Refer <i>Resistance Management</i> – Note 2

Table 8 cont. Powdery mildew control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

<p>Powdery mildew</p>	<p><i>Nimrod Fungicide</i> 250 g/L bupirimate (8)</p>	<p>40 - 60 mL/100 L</p>	<ul style="list-style-type: none"> ▪ Apply in sufficient volume to ensure adequate coverage of all plant surfaces. ▪ Apply as a foliar spray on a 7 – 14 day schedule when conditions favour disease development, or as required. ▪ Apply maximum five (5) foliar treatments per production cycle. ▪ DO NOT apply during abnormally hot, cold, or slow drying conditions. ▪ Refer to product label for <i>Safety Directions</i> and <i>First-aid Instructions</i>. In addition to <i>Safety Directions</i> on the product label, wearing a suitable disposable dust particulate or mist mask is recommended when preparing or using products. ▪ DO NOT allow entry into treated areas until the spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day’s use.
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Table 9. Rhizoctonia rot control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
Rhizoctonia rot <i>(Rhizoctonia spp.)</i>	Switch Fungicide 375 g/kg cyprodinil (9) plus 250 g/kg fludioxonil (12)	80 g/100 L or 800 g/ha	<ul style="list-style-type: none"> ▪ DO NOT apply more than four (4) applications per crop at 10 to 14 day intervals when conditions favour disease development, prior to or at the first symptoms. ▪ DO NOT apply more than two (2) consecutive applications of <i>Switch Fungicide</i> before applying at least the same number of sprays from a different mode of action group. ▪ Apply via calibrated boom or handheld sprayer. ▪ Refer <i>Crop Damage/Phytotoxicity</i> – Note 3.
	Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products	150 - 200 g/100 L	<ul style="list-style-type: none"> ▪ Apply as a preventative treatment when conditions favour disease development, or at the first signs of disease infection. ▪ DO NOT use mancozeb as a curative fungicide. ▪ Thorough coverage of foliage is essential for optimum performance. Apply in sufficient water volume to cover all foliage to the point of run-off. Avoid excessive run-off. ▪ During wet and/or humid weather conditions favourable for disease development, use higher rate and shorter spray interval. ▪ Apply two (2) sequential mancozeb cover sprays at 7 – 10 day interval; then alternate to a fungicide from another chemical group with a different <i>Mode of Action</i>. ▪ DO NOT apply more than four (4) applications of mancozeb product per crop. ▪ Mancozeb products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure.

Table 10. Rust control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
Rusts <i>(Puccinia spp., Phragmidium spp., Uromyces spp.)</i>	<i>Amistar 250 SC Fungicide</i> and other registered products containing 250 g/L azoxystrobin (11)	80 - 120 mL/100 L	<ul style="list-style-type: none"> ▪ DO NOT use concentration factors exceeding four times (4x). ▪ Apply in sufficient volume to ensure adequate coverage of all plant surfaces. ▪ DO NOT use azoxystrobin curatively. ▪ DO NOT apply more than two (2) consecutive applications of azoxystrobin.
	<i>Amistar WG Fungicide</i> and other registered products containing 500 g/kg azoxystrobin	40 - 60 g/100 L	
	Mancozeb (M3) 750 g/kg OR Mancozeb 800 g/kg products	150 - 200 g/100 L	<ul style="list-style-type: none"> ▪ Apply as a preventative treatment when conditions favour disease development, or at the first signs of disease infection. ▪ DO NOT use mancozeb as a curative fungicide. ▪ Thorough coverage of foliage is essential for optimum performance. Apply in sufficient water volume to cover all foliage to the point of run-off. Avoid excessive run-off. ▪ During wet and/or humid weather conditions favourable for disease development, use higher rate and shorter spray interval. ▪ Apply two (2) sequential mancozeb cover sprays at 7 – 10 day interval; then alternate to a fungicide from another chemical group with a different <i>Mode of Action</i>. ▪ DO NOT apply more than four (4) applications of mancozeb product per crop. ▪ Mancozeb products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure.

Table 11. Sclerotinia rot control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
Sclerotinia rot (<i>Sclerotinia spp.</i>)	<i>Switch Fungicide</i> 375 g/kg cyprodinil (9) plus 250 g/kg fludioxonil (12)	80 g/100 L or 800 g/ha	<ul style="list-style-type: none">▪ DO NOT apply more than four (4) applications per crop at 10 to 14 day intervals when conditions favour disease development, prior to or at the first symptoms.▪ DO NOT apply more than two (2) consecutive applications of <i>Switch Fungicide</i> before applying at least the same number of sprays from a different mode of action group.▪ Apply via calibrated boom or handheld sprayer.▪ Refer <i>Crop Damage/Phytotoxicity</i> – Note 3.

Table 12. Septoria leaf spot control in nursery stock and ornamentals

Including (non-food) - seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit trees (non-bearing) and ornamentals

Disease	Product (MoA)	Rate	Critical Use Comments
Septoria leaf spot <i>(Septoria spp.)</i>	<i>Zeemil 720 WG Fungicide</i> and other registered products containing 640 g/kg mancozeb (M3) plus 80 g/kg metalaxyl (4)	2.5 kg product in 200 - 500 L water per hectare	<ul style="list-style-type: none"> ▪ Commence spraying early (i.e. prior to the known infection period) with a registered fungicide product from a different activity (MoA) group. ▪ Apply maximum two (2) consecutive applications when conditions favour disease development. Consecutive sprays should be applied 7 to 10 days apart. Continue the spray program using non-Group 4 fungicides with <u>protective</u> activity. ▪ Apply maximum four (4) foliar spray applications within an annual production cycle. ▪ Thorough coverage of foliage is essential: apply diluent to the point of run-off. ▪ Use in accordance with existing Fungicide Resistance Management strategies and in accordance with best practice. ▪ Refer <i>Re-entry Period</i> – Note 4
	<i>Ridomil Gold MZ Fungicide</i> and other registered products containing 640 g/kg mancozeb plus 40 g/kg metalaxyl-M	2.5 kg product in 200 - 500 L water per hectare	
	Mancozeb 750 g/kg OR Mancozeb 800 g/kg products	150 - 200 g product / 100 L	<ul style="list-style-type: none"> ▪ Apply as a preventative treatment when conditions favour disease development, or at the first signs of disease infection. ▪ DO NOT use mancozeb as a curative fungicide. ▪ Thorough coverage of foliage is essential for optimum performance. Apply in sufficient water volume to cover all foliage to the point of run-off. Avoid excessive run-off. ▪ During wet and/or humid weather conditions favourable for disease development, use higher rate and shorter spray interval. ▪ Apply two (2) sequential mancozeb cover sprays at 7 – 10 day interval; then alternate to a fungicide from another chemical group with a different <i>Mode of Action</i>. ▪ DO NOT apply more than four (4) applications of product per crop. ▪ Mancozeb products should be used as part of an integrated disease management program, which incorporates as many control options as possible to minimise disease pressure.

Table 13. Myrtle rust control in nursery stock and ornamentals

Including nursery stock (non-food and forestry), non-bearing fruit trees*, ornamentals and cut flowers/foilage

Disease	Product (MoA)	Rate	Critical Use Comments
Myrtle rust (<i>Uredo rangelii</i> .)	Copper hydroxide (M1) 350 g/L products	150 mL/100 L	<ul style="list-style-type: none"> ▪ Commence foliar spray application at first sign of disease. ▪ Ensure complete and thorough coverage of foliage and/or crop. Use a minimum spray volume of 250 L/ha using air-blast spray or boomspray. ▪ DO NOT apply more than six (6) applications per crop with a re-treatment interval of 7-14days between consecutive sprays. <ul style="list-style-type: none"> ▪ Apply by ground application only e.g. knapsack, powered hand-gun, boom, air-assisted. ▪ Apply in sufficient volume to ensure thorough coverage of all plant surfaces. ▪ Treat a sample area and assess appropriately prior to whole crop treatment to help minimise potential for phytotoxic damage. This is particularly important for crops in bloom. ▪ DO NOT apply more than two (2) consecutive applications of a chemical from the same chemical class (Mode of Action Group). Rotate approved products from different chemical mode of action groups at regular intervals within a structured disease management plan. ▪ Refer <i>Resistance Management Strategy</i> – Note 5 <p>For interstate quarantine requirements:</p> <ul style="list-style-type: none"> ▪ Apply in accordance with the procedures outlined in the appropriate State Import Requirement or Interstate Certification Assurance (ICA) Document. DO NOT apply the same chemical (or chemical class) on despatch that will be used by an importing authority for decontamination on receipt.
	Copper hydroxide 375 g/kg products	140 g/100 L	
	Copper hydroxide 500 g/kg products	100 g/100 L	
	Triadimenol (3) products	50 mL/100 L	
	Triforine (3) products	130 mL/100 L	
	Mancozeb (M3) 750 g/kg products	210 - 250 g/100 L	
	Mancozeb 800 g/kg products	200 - 230 g/100 L	
	<i>Amistar 250 SC Fungicide</i> and other registered products containing 250 g/L azoxystrobin (11)	40 mL/100 L	
	Copper oxychloride (M1) products	300 g/100 L	
	Oxycarboxin (7) products	130 g/100 L	
Propiconazole (3) products	32 mL/100 L		

*At least 6 months prior to first harvest

Table 14. Myrtle rust in HOME GARDEN situations

Including ornamentals and non-fruit bearing plants* of the Myrtaceae family.

Disease	Product (MoA)	Rate	Critical Use Comments
Myrtle rust <i>(Uredo rangelii)</i>	Copper oxychloride (M1) 500 g/kg products	3 g product / L	<ul style="list-style-type: none"> ▪ Apply by knapsack or powered hand-gun. ▪ Apply in sufficient volume to ensure thorough coverage of all plant surfaces. ▪ Refer to <i>Management Strategy</i> – Note 6.
	Mancozeb (M3) 750 g/kg products	2.5 g product / L	
	Triforine (3) 20 g/L products	15 mL product / L	

*At least 6 months prior to first harvest

NOTES:

1. *Safety Directions:*

In addition to the Safety Directions listed on the product label, the following must be observed when using *Pristine Fungicide* under this permit:

Hazard: Will irritate the eyes and skin.

Precautions: Avoid contact with eyes and skin.

Mixing or Using: When opening the container, preparing spray and using the prepared spray, wear elbow-length chemical resistant gloves and a disposable dust face mask covering mouth and nose. If applying by spraying equipment carried on the back of the user (backpack application), wear cotton overalls over normal clothing, buttoned to the neck and wrist, and elbow-length, chemical-resistant gloves and a disposable dust face mask covering mouth and nose.

After use: Wash hands after use. After each day's use, wash gloves and contaminated clothing.

Refer to product label for First-aid Instructions and Safety Directions in regard to re-entry into treated areas.

2. *Resistance Management*

Pristine Fungicide should be used in conjunction with other fungicide products from different chemical groups. A minimum of three different chemical groups should be used in an effective resistance management strategy to control powdery mildew disease. *Fungicide Resistance Management Strategies* have been developed by CropLife Australia. An updated version of these strategies is available from CropLife Australia's website at:

<http://www.croplifeaustralia.org.au>.

3. *Crop Damage/Phytotoxicity – Switch Fungicide*

Switch Fungicide has demonstrated toxicity under certain situations, application methods, application rates and weather conditions to nursery stocks including Impatiens, New Guinea Impatiens, Geraniums, Ferns, Anemone, Begonia, Kalanchoe, Saint Paulia and Exacum affine. *Switch Fungicide* may also leave undesirable spray residue on foliage and flowers.

4. *Re-entry to Treated Areas – Mancozeb & Metalaxyl*

DO NOT enter treated areas for 2 days after application unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

5. *Resistance management strategy*

Fungicide	Activity	Chemical group	Minimum re-treatment interval between consecutive applications
TRIADIMENOL	Systemic, curative and protectant	3	14-21 days
TRIFORINE	Systemic, slightly curative and protectant	3	7 days
MANCOZEB	Protectant	M3	7 days
AZOXYSTROBIN	Slightly curative and protectant	11	14-21 days
COPPER OXYCHLORIDE	Protectant	M1	7-14 days
OXYCARBOXIN	Systemic, curative and protectant	7	14 days
PROPICONAZOLE	Systemic, curative and protectant	3	7 days

6. Resistance Management strategy for control of myrtle rust in home gardens

Triforine is slightly curative as well as a protectant. It can be applied when disease is noticeably affecting plants or prior to this when warm, wet and humid conditions prevail.

Mancozeb and copper oxychloride are protectants and should be applied before disease is noticeably affecting plants when warm, wet and humid conditions prevail.

Fungicide	Activity	Chemical group	Minimum re-treatment interval between consecutive applications
TRIFORINE	Systemic, slightly curative and protectant	3	7 days
MANCOZEB	Protectant	M3	7 days
COPPER OXYCHLORIDE	Protectant	M1	7-14 days